

**DETAILED ACTION**

***Status of Claims***

Claims 1-10 are in the application.

Claims 1-10 are rejected.

***Information Disclosure Statement***

The Information Disclosure Statements received 10/31/2005 has been considered. See attached PTO-1449(s).

***Specification Objections***

The abstract of the disclosure is objected to because it contains legal phraseology such as "comprising" and "said". Correction is required. See MPEP § 608.01(b).

The specification is objected to because of the following informalities:

The specification's pages 1-2 appear to discuss the related prior art; Page 3 to page 4 line 24 appear to provide a brief summary of the invention; And the body of the invention seems to be disclosed at page 4 line 25 to page 6.

Applicant is requested to provide appropriate headers for each section of the specification.

Additionally, numerous paragraphs disclosed in the specification that appear mismatching with respectively claims they intent for. For example,

the content of page 3 last paragraph appears to match with claim 3 instead of "a method according to claim 2",

the content of page 4 first paragraph appears to match with claim 4 instead of "a method according to claim 3",

the content of page 4 second paragraph appears to match with claim 5 instead of "a method accords to claim 4".

Appropriate corrections are required.

### ***Drawing Objections***

Replacement drawings in compliance with 37 CFR 1.84 and 37 CFR 1.121 are required. The drawings submitted are not acceptable because:

Fig 1 diamond box 4 shows a dash line going from box 4 to 10. However, there is no disclosure in the specification to set forth what the dash line means.

Fig 1 diamond box 8 represents a conditional element in the flowchart. However, the content, disclosed at page 5 line 4, directs to an assignment statement.

Fig 1 diamond box 18 represents a conditional element in the flowchart. However, there is only one result of the conditional is shown and it's not labeled as "yes" not "no".

Fig 1 diamond box 19 represents a conditional element in the flowchart. However, the content, disclosed at page 5 line 20, directs to an assignment statement.

### ***U.S.C. 112, second paragraph***

The following is a quotation of the second paragraph of 35 U.S.C. 112:  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 3, the recitation "said previous memory configurations" lacks antecedent basis.

The recitation "...characterized by carrying out an alteration of said memory configurations according to steps a-d to a further memory configuration.." is not clear. The alteration according to claim 1 requires two configurations and it is not clear which configuration of claim 1 the "further memory configuration" is characterized to.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(a) the invention was known or used by other's in this country or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

e) the invention was described in (1) an application for patent, published under section 122(b) by another filed in the United States before the invention by the

applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 2192) of such treaty in the English language.

Claims 1-8 are rejected under 35 U.S.C. 102 (e) as being anticipated by Herr et al (US 2003/0101324).

As in claim 1, Herr discloses a method for altering memory configurations in a physical memory where a first memory configuration and at least a second memory configuration are defined by at least one memory pool comprising at least one memory packet respectively (paragraph 26, altering memory configurations of processes; each memory configuration is organized to pools of buffers of different sizes, paragraph 34; the buffers are allocated to store data packets being received and are released when they are transmitted, paragraphs 22 and 26), comprising the steps of:

- a) detecting a released memory packet within a memory pool of said first memory configuration (paragraph 26 lines 10-28 ,when data of a first process's memory configuration is transmitted, the associating buffer is released),
- b) assigning memory from said released memory packet to said second memory configuration (paragraph 35),

c) determining the size of said assigned free memory of said second memory configuration (Fig 4, paragraph 29 a second process's memory configuration data structure 402 comprises elements to determine maximum size (BuddyWall), and the remaining free memory size to be used/to be requested are known, see paragraph 32 lines 18-29 and paragraph 34); and

d) allocating within said assigned free memory a required amount of memory for a memory packet of a pool of said second memory configuration in case said assigned free memory size satisfies said allocation request (the request to store data packet in the second process's memory configuration must fit within the remaining free memory, paragraphs 34; the remaining free memory size to be used/to be requested are known, see paragraph 32 lines 18-29 and paragraph 34).

As in claim 2, Herr further discloses characterized by repeating the steps a-d until all allocated memory packets of said first memory configuration are released and all memory packets of said second memory configuration are allocated (Fig 5, paragraph 40, until all buffers has been allocated, the memory allocation processing for this request is terminated).

As in claim 3, Herr further discloses characterized by carrying out an alteration of said memory configurations according to steps a-d to a further memory configuration prior to the release of all memory packets of said previous memory configurations (paragraph 43, the memory allocation processing done for several processing modules).

As in claim 4, Herr further discloses characterized by assigning all free memory of said first memory configuration to at least said second memory configuration prior to

step a (paragraph 33, a base allocating Fig 5 502 can be assigned prior to subsequent incrementing allocations).

As in claim 5, Herr further discloses characterized by configuring said memory configurations by allocating a fixed memory location to said at least one memory pool, and assigning memory packets within each of said at least two memory pools (paragraph 29, kernel memory pool is allocated in a fix heap memory; A kernel memory pool comprises of one or more groups of buffers/"buffer pools"; each "buffer pool" has a fix buffer size, see paragraph 34. Examiner notes: the group of buffers with a same fix size corresponds to claim's memory pool).

As in claim 6, Herr further characterized by allocating equally sized memory packets within a memory pool (paragraph 34, a kernel memory pool comprises of one or more groups of buffers/"buffer pools" ; each "buffer pool" has a fix buffer size. Examiner notes: the group of buffers with a same fix size corresponds to claim's memory pool; Buffers are assigned to packets paragraphs 22 and 26 lines 8-28).

As in claim 7, Herr further discloses characterized by releasing memory packets of said first memory configuration within a finite time (paragraph 42).

As in claim 8, Herr further discloses characterized by determining said second configuration prior to step a (paragraph 30, element BuddyWall defines the maximum size of a process's memory configuration).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herr et al (US 2003/0101324) as applied above, and in view of Dan et al (US 5544327).

As in claim 9, Herr does not expressly disclose the claim's detail associating with streaming system. However, Dan discloses a streaming systems in particular in video- and audio-streaming systems, where a memory configuration is based on a defined streaming graph (Dan's Fig 1 30 video server, to stage streaming data from disk to memory buffer and distributing to various users/clients). Dan further discloses a way to retains video data in the buffer to re-transmission to other clients (col. 4 lines 1-8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Dan's retaining video streaming data in buffer into Herr's system, and thereby the buffer can be used more efficiently particular for sharing data in the buffer among several clients (Dan's col. 4 lines 1-9).

As in claim 10, Herr does not expressly disclose the claim's detail associating with a processor. However, Dan discloses an integrated circuit, in particular a digital signal processor, a digital video processor, or a digital audio processor (Dan's Fig 1 30 video server, to stage streaming data from disk to memory buffer and distributing to various users/clients). Dan further discloses a way to retains video data in the buffer to re-transmission to other clients (col. 4 lines 1-8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Dan's retaining video streaming data in buffer into Herr's system, such that the memory allocation method can be further enhanced and thereby the buffer can be used more efficiently particular for sharing data in the buffer among several clients (Dan's col. 4 lines 1-9).

### *Conclusion*

When responding to the office action, Applicant is advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist examiner to locate the appropriate paragraphs.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc T. Doan whose telephone number is 571-272-4171. The examiner can normally be reached on M-F 8:00 AM 05:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung S. Sough can be reached on 571-272-6799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 2188

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